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UNITED STATES DEPARTMENT OF AGRICULTURE
BULLETIN No. 1020

Contribution from the Office of Farm Management and Farm Economics
G. W. FORSTER, Acting Chief

Washington, D. C. ▼ April 12, 1922

HARVEST LABOR PROBLEMS IN THE WHEAT BELT

By

D. D. LESCOHIER

Collaborator

CONTENTS

	Page
Scope of the Investigation	2
Fluctuations in Harvest Labor Demand	3
Character of Harvest Labor	14
Mobilization of Harvest Labor	22
Distribution of Harvest Labor	26
Harvest Wages	30
Conclusions	34

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	Page.		Page.
Scope of the investigation	2	Mobilization of harvest labor	22
Fluctuations in harvest labor demand	3	Distribution of harvest labor	26
Character of harvest labor	14	Harvest wages	30
		Conclusions	34

SCOPE OF THE INVESTIGATION.

The small-grain harvest of the area lying between the Mississippi River and the arid districts east of the Rocky Mountains, from Texas to the Canadian border, is one of the most dramatic episodes in the economic life of the United States. Each year it calls more than 100,000 men from various parts of the country to aid in harvesting, thrashing, and storing or shipping nearly 450,000,000 bushels of wheat and 600,000,000 bushels of other small grains (Tables 1 and 2). It is more than a local venture; it is a national enterprise. Not only the people, resident or transient, who cut, shock, and thrash the grain, but the entire country feels its effects. Because of this and because farm-labor problems in general are becoming more urgent, data on labor conditions throughout the wheat belt in the harvest season of 1920 were collected by the United States Department of Agriculture.

Most of the information presented in this bulletin was obtained by field agents of the office of Farm Management and Farm Economics, who interviewed nearly 3,000 harvest hands, many farmers, county agricultural agents, employment officials, chamber of commerce secretaries, bankers, merchants, and other citizens in the harvest area of Oklahoma, Kansas, Nebraska, Iowa, and the Dakotas.[1]

[1] The author wishes to acknowledge the assistance given by A. L. Barkman, in charge of the United States Employment Service at Kansas City, Mo.; A. C. Albert, in charge of the State free employment office at Sioux City, Iowa; and E. L. Rhoades, farm management demonstrator, at Manhattan, Kans. The cooperation of county agents, bankers, local employment offices, and many other persons and organizations has added greatly to the value of this report.

The investigation was confined to the wheat area of the central part of the American continent, the so-called Big Wheat Belt, extending from northern Texas on the south to Manitoba and Sas-

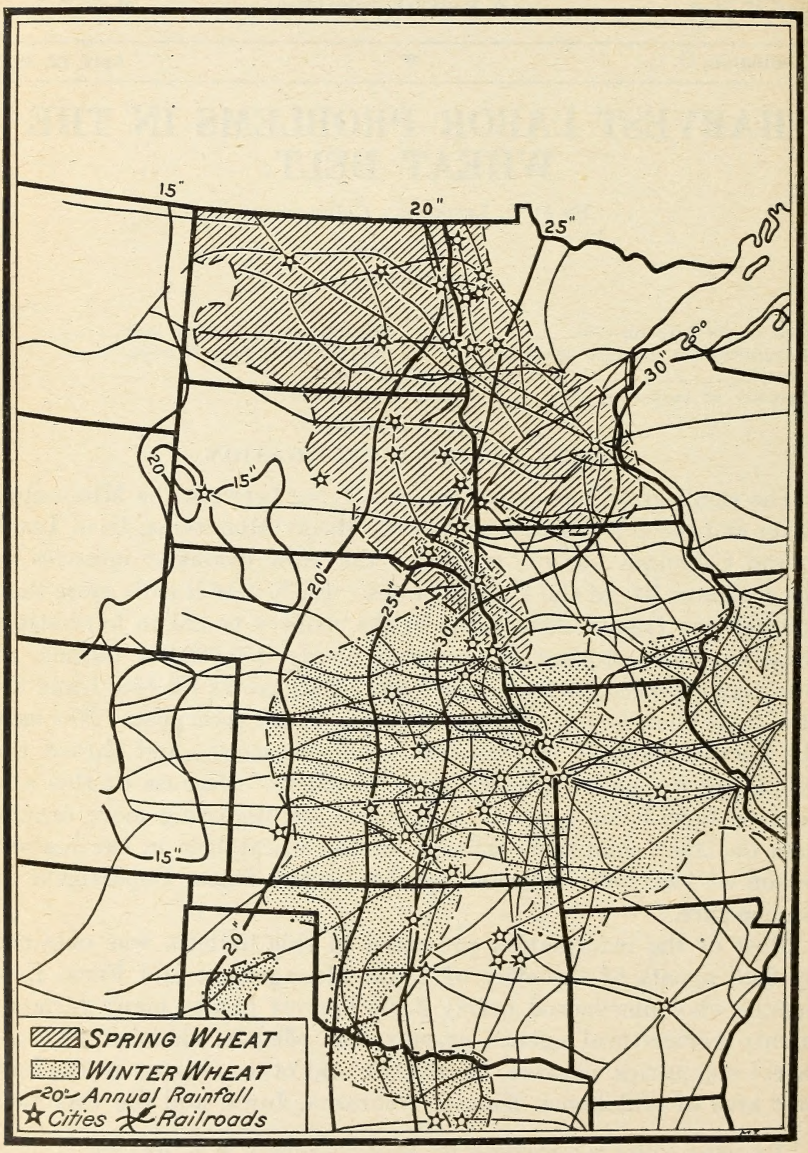

FIG. 1.—The wheat belt of the United States.

katchewan on the north, and, in irregular contour, from the Mississippi River on the east to the arid belt which runs south from eastern Montana to New Mexico. There are two principal wheat-pro-

ducing areas, the winter-wheat area, centering in Kansas, and the spring-wheat area, centering in North Dakota (fig. 1). The wheat areas of Nebraska and South Dakota are much smaller than those of Kansas and North Dakota (Tables 1 and 2).

TABLE 1.—*Wheat production of the United States.*[1]

State.	Average production, 1914–1920.		Percentage of total.	
	Winter.	Spring.	Winter.	Spring.
	Bushels.	*Bushels.*	*Per cent.*	*Per cent.*
United States	587,459,143	246,264,714	100.0	100.0
Total for States given	265,505,143	172,790,285	45.2	70.2
North Dakota	.....	79,737,000	.....	32.4
South Dakota	1,590,000	39,952,000	.1	16.1
Minnesota	1,126,857	47,892,857	.2	19.4
Missouri	38,066,286	266,667	6.5	.1
Nebraska	49,894,000	5,099,143	8.5	2.0
Kansas	116,553,143	423,571	19.8	.2
Oklahoma	40,418,429	.....	6.9	.....
Texas	17,856,429	.....	3.2	.....
All other	321,954,000	73,474,429	54.8	29.8

[1] Figures taken from U. S. Dept. Agr. Yearbooks, 1914–1917, and Crop Reporter, 1918–1920 (revised figures not used for 1919–20).

TABLE 2.—*Average annual production of small grains other than wheat in the Wheat Belt, 1914–1920.*[1]

State.	Average production, 1914–1920 (000 omitted).					Percentage of all small grains.	Percentage of all small grains in wheat.
	Oats.	Barley.	Rye.	Buckwheat.	Total.		
	Bushels.	*Bushels.*	*Bushels.*	*Bushels.*	*Bushels.*	*Per cent.*	*Per cent.*
United States	1,404,719	206,744	64,257	15,577	1,691,297	66.9	33.1
Total for States given	477,068	101,433	26,876	281	605,658	58.0	42.0
North Dakota	57,689	28,220	9,256	.....	95,165	54.4	45.6
South Dakota	56,720	25,167	4,863	.....	86,750	67.6	32.4
Minnesota	112,724	32,024	6,767	189	151,704	75.2	24.8
Missouri	40,813	185	435	71	41,504	52.0	48.0
Nebraska	77,787	4,756	3,893	21	86,457	61.1	38.9
Kansas	53,454	10,011	1,453	.....	64,918	35.7	64.3
Oklahoma	33,957	772	167	.....	34,896	46.2	53.8
Texas	43,924	298	42	.....	44,264	71.1	28.9
All others	927,651	105,311	37,381	15,296	1,085,639	73.2	26.8

[1] Figures taken from U. S. Dept. Agr. Yearbooks, 1914–1919, and Monthly Crop Reporter, 1920 (figures for 1919–20 not revised).

FLUCTUATIONS IN HARVEST LABOR DEMAND.

Farming is essentially a seasonal industry, and small-grain cultivation is one of the most seasonal forms of farming. At seeding time extra help is needed for preparing the soil and sowing, and in the summer a crew of men for harvesting and thrashing is necessary. During the remainder of the year, however, the farmer and his family, with perhaps a hired man, do the work on the representative grain-belt farm. The harvest labor force is several times as large as the force at work during most of the year. This, essentially, is the cause of the great movement of labor into the southern

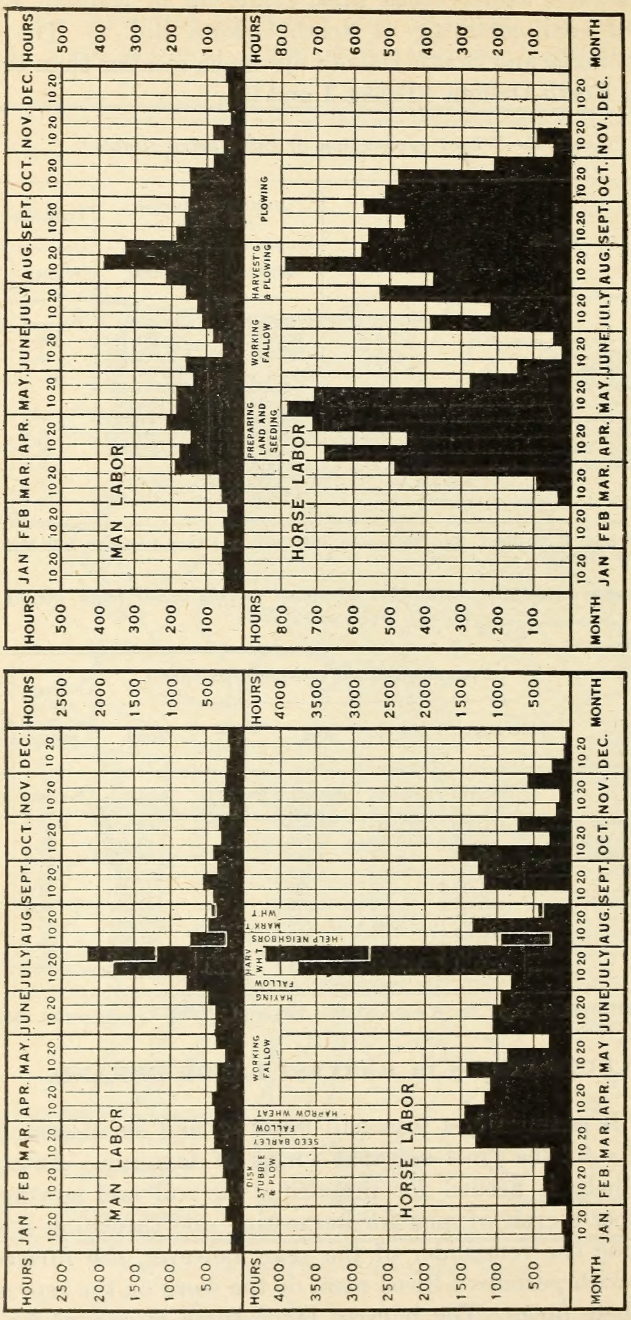

FIG. 2.—Winter-wheat region: Seasonal distribution of total labor on an 800-acre wheat and summer-fallow farm, Walla Walla, Wash.[1]

FIG. 3.—Spring-wheat region: Seasonal distribution of total labor on a 600-acre grain farm, North Dakota.[1]

[1] Reprinted from U. S. Dept. Agr. Yearbook, 1917, Separate 758, "A Graphic Summary of Seasonal Work on Farm Crops," by O. E. Baker, C. F. Brooks, and R. G. Hainsworth.

grain belt in June and July and into the northern area in August and September. Thus an industry which needs only a comparatively small amount of labor during most of the year suddenly requires an army of men to handle its peak load (figs. 2 and 3).

A surprising number of transient laborers secure work of less than a week's duration (Table 4). It was found that on an average men spent 26 days in the harvest area, working 15 days and losing 11 days (Table 4).

TABLE 3.—*Wheat acreage and production in the Wheat Belt, 1918–1920.*

State.	Winter wheat (000 omitted).				Spring wheat (000 omitted).				Percentage production, 1918–1920.	
	Acreage.		Production.		Acreage.		Production.			
	1920	1918–1920 (average).	1920	1918–1920 (average).	1920	1918–1920 (average).	1920	1918–1920 (average.	Winter 1918–1920.	Spring 1918–1920.
	Acres.	*Acres.*	*Bushels.*	*Bushels.*	*Acres.*	*Acres.*	*Bushels.*	*Bushels.*	*Per cent.*	*Per cent.*
Texas	1,225	1,390	15,925	19,555	.....	.....	.....	.....	100.0	.....
Oklahoma	2,890	3,120	46,240	44,393	.....	.....	.....	.....	100.0	.....
Kansas	8,886	9,034	136,844	130,135	17	26	212	246	99.8	0.2
Nebraska	3,335	3,356	58,029	48,835	258	525	2,451	5,228	90.3	9.7
Missouri	2,600	3,361	32,500	48,303	17	23	221	266	99.5	.5
Iowa	431	602	8,491	11,244	400	615	4,520	8,392	57.3	42.7
Minnesota	60	65	1,176	1,131	2,941	3,430	27,940	45,943	2.4	97.6
South Dakota	56	70	812	1,049	2,830	3,227	25,470	38,490	2.7	97.3
North Dakota	.....	.....	.....	.....	7,600	7,790	68,400	76,424	.....	100.0

A few of the men had fairly steady employment. Three farm boys from Ohio, who reached the Oklahoma fields on June 16, obtained 12 days' work in Oklahoma, 35 in Kansas, 10 in Nebraska, and 4 in South Dakota, between June 16 and August 26, when they were looking for thrashing work at Minot, N. Dak. They worked 61 out of 71 days. Allowing for Sundays, in order to compare this work with urban employment, it may be stated that these boys had steady work. Each had sent home about $200, and they had a fair chance for from two to six weeks more without going to Canada. Other fortunate men worked 54 out of 65, 24 out of 27, 18 out of 21, 25 out of 30, 27 out of 36, and 33 out of 41 days. More frequently men worked 12 out of 23 days, 15 out of 37, and 20 out of 36, while those who were most unfortunate worked as little as 10 out of 33, 18 out of 46, 11 out of 37, and ½ out of 11 days. These figures, however, probably are not typical of the average experience of all extra help hired by farmers for the small-grain harvest.

EXPANSION AND CONTRACTION OF ACREAGE.

Ordinarily the harvest opens in Texas and southern Oklahoma between June 1 and June 10 and moves northwest at an irregular rate, depending upon the weather, reaching the Canadian boundary about

the middle of August. The dates when the harvests of the several States begin are shown in figures 4, 5, 6, and 7.

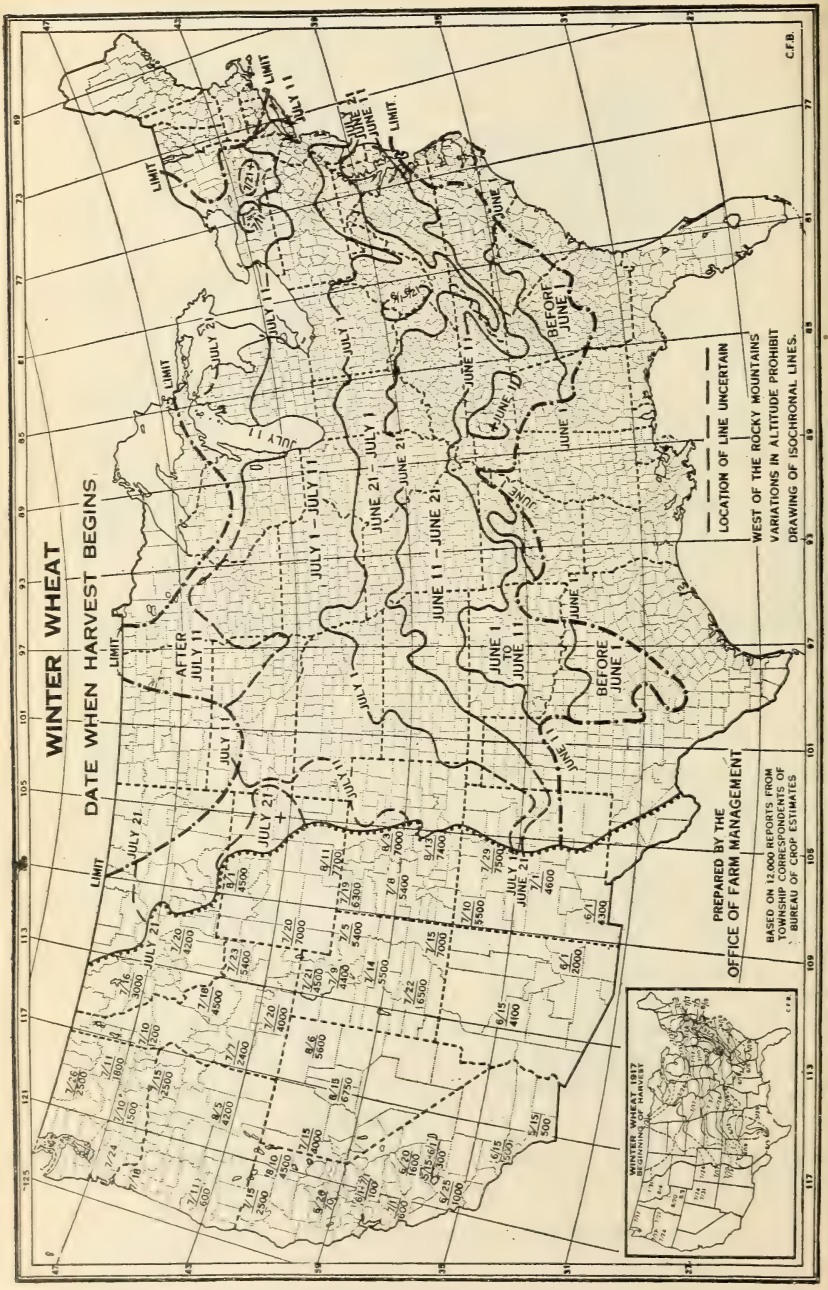
WINTER WHEAT
DATE WHEN HARVEST BEGINS
LIMIT
AFTER JULY 11
JULY 1 – JULY 11
JUNE 21 – JULY 1
JUNE 11 – JUNE 21
JUNE 1 TO JUNE 11
BEFORE JUNE 1
LOCATION OF LINE UNCERTAIN
WEST OF THE ROCKY MOUNTAINS VARIATIONS IN ALTITUDE PROHIBIT DRAWING OF ISOCHRONAL LINES.
PREPARED BY THE OFFICE OF FARM MANAGEMENT
BASED ON 12,000 REPORTS FROM TOWNSHIP CORRESPONDENTS OF BUREAU OF CROP ESTIMATES
C.F.B.

FIG. 4.—Dates when winter-wheat harvest begins.

The Texas and southern Oklahoma acreage, in which the wheat harvest starts, is very small compared with that of north central

Oklahoma and southern Kansas, to which it shifts next (Table 3, and fig. 1.) Opening with a comparatively small demand for labor, most

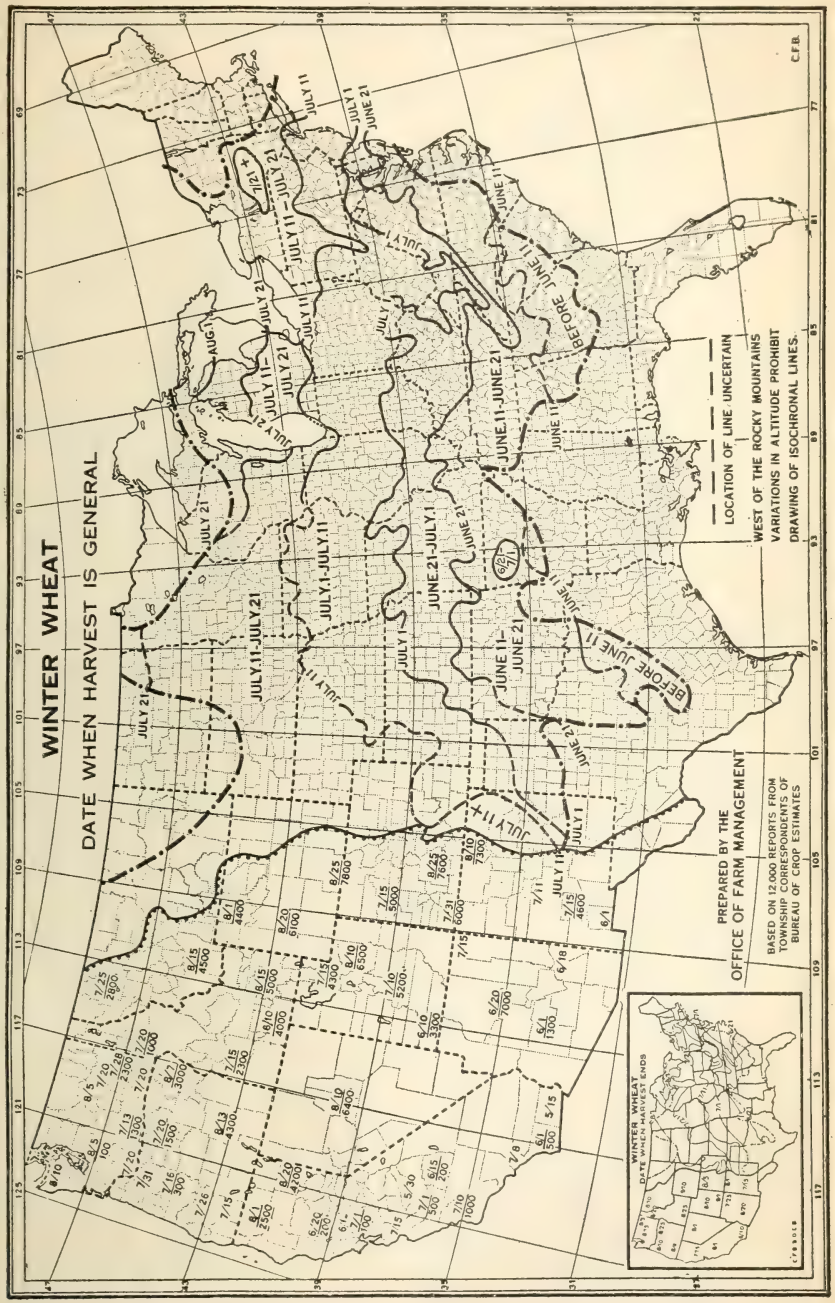
WINTER WHEAT
DATE WHEN HARVEST IS GENERAL
JULY 21
JULY 11-JULY 21
JULY 1-JULY 11
JUNE 21-JULY 1
JUNE 11-JUNE 21
BEFORE JUNE 11
LOCATION OF LINE UNCERTAIN
WEST OF THE ROCKY MOUNTAINS VARIATIONS IN ALTITUDE PROHIBIT DRAWING OF ISOCHRONAL LINES.
PREPARED BY THE OFFICE OF FARM MANAGEMENT
BASED ON 12,000 REPORTS FROM TOWNSHIP CROP CORRESPONDENTS OF BUREAU OF CROP ESTIMATES
C.F.B.

FIG. 5.—Dates when winter-wheat harvest is general.

of which ordinarily is met by residents of Texas and Oklahoma, the harvest creates a rapidly increasing demand for men which reaches

its maximum when the harvests of central and northern Kansas, northwestern Oklahoma, Missouri, and southeastern Nebraska are in

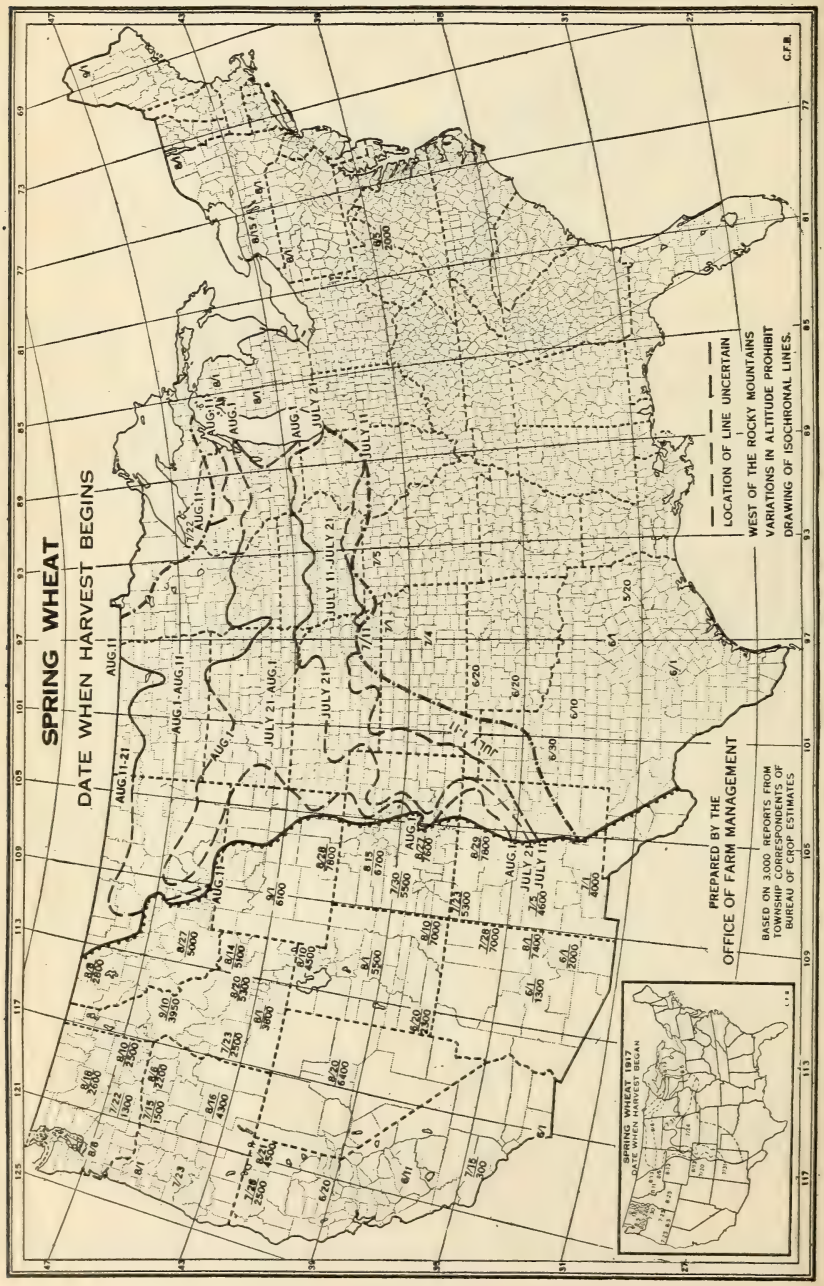
SPRING WHEAT
DATE WHEN HARVEST BEGINS
AUG. 11
AUG. 11-21
AUG. 1-AUG. 11
AUG. 1
JULY 21-AUG. 1
JULY 21
JULY 11-JULY 21
JULY 11
LOCATION OF LINE UNCERTAIN
WEST OF THE ROCKY MOUNTAINS VARIATIONS IN ALTITUDE PROHIBIT DRAWING OF ISOCHRONAL LINES.
PREPARED BY THE OFFICE OF FARM MANAGEMENT
BASED ON 3,000 REPORTS FROM TOWNSHIP CORRESPONDENTS OF BUREAU OF CROP ESTIMATES
SPRING WHEAT 1917 DATE WHEN HARVEST BEGAN
C.P.B.

Fig. 6.—Dates when spring-wheat harvest begins.

full swing, from two to four weeks after the grain has been cut in northern Texas. As work in these areas nears completion the de-

mand for labor contracts sharply. The Nebraska, northwestern Iowa, and South Dakota acreage never calls for more than one-fourth as

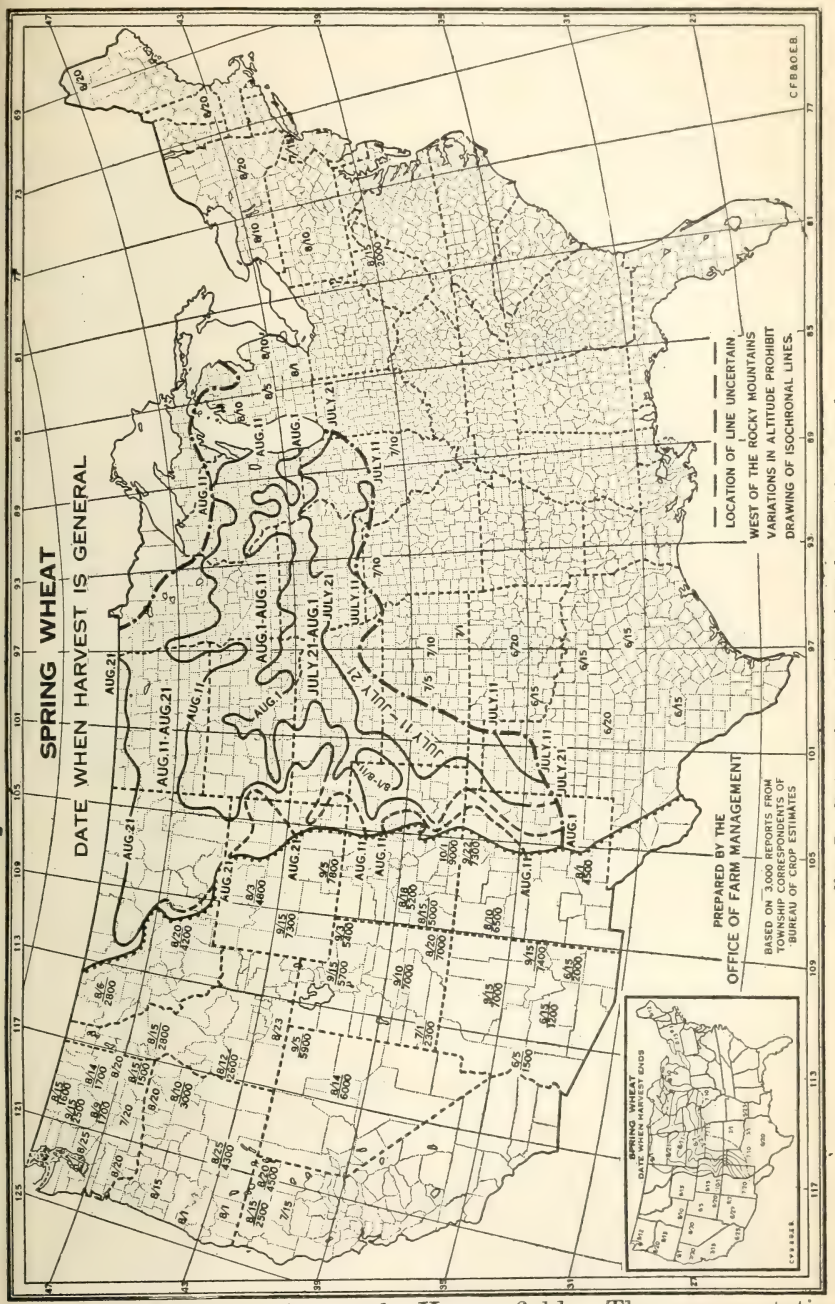
SPRING WHEAT
DATE WHEN HARVEST IS GENERAL
LOCATION OF LINE UNCERTAIN, WEST OF THE ROCKY MOUNTAINS VARIATIONS IN ALTITUDE PROHIBIT DRAWING OF ISOCHRONAL LINES.
PREPARED BY THE OFFICE OF FARM MANAGEMENT
BASED ON 3,000 REPORTS FROM TOWNSHIP CORRESPONDENTS OF BUREAU OF CROP ESTIMATES
C.F.B.&O.E.B.

FIG. 7.—Dates when spring-wheat harvest is general.

many men at any one time as the Kansas fields. The acreage statistics (Table 3 and fig. 1) show that a reduction in the labor demand is inevitable during the latter part of July.

TABLE 4.—*Irregularity of employment in harvest (time worked and time lost by 154 harvest hands).*

Regular occupation of 154 harvest laborers.	Total time in harvest area from date of arrival to date interviewed.	Total time worked by each group.	Total time lost by each group.	Time lost by each group.
	Days.	*Days.*	*Days.*	*Per cent.*
Factory hands	443	225	218	49.2
Farm laborers	607	351	256	42.2
Farmers	671	436	235	35.0
Laborers	684	418	266	38.9
Mechanics	647	394	253	39.1
Miscellaneous	202	121	81	40.1
Students	759	392	367	48.4
Average per man	26	15	11	42.3

So far as the demand for labor is concerned, the harvest consists of two distinct but connected episodes. Beginning on a small scale in Texas in early June, the southern (winter-wheat) demand has expanded to a large volume by the last week in June, when Texas, Oklahoma, and southeastern Kansas are at work, and reaches its maximum in Kansas about the middle of July. It then gradually tapers off through the winter-wheat harvest of southeastern Nebraska, shrinking to almost nothing before the end of July. Beginning during the last two weeks of July on the eastern border of Nebraska, the demand for labor for harvesting the spring wheat gradually expands as the harvest goes northward across South Dakota, to reach its maximum by the middle of August in North Dakota, after which it declines rapidly. The largest numbers of men are employed during the first three weeks of August.

If all the harvest hands who work in Kansas should desire to follow the harvest through North Dakota it would be necessary for fully half of them to remain idle for from two to four weeks between the ending of work in Kansas and the beginning of work in North Dakota, and when they reached North Dakota they would be forced into competition for employment with many thousands of men who had come into the northern harvest from the East by way of Fargo and Grand Forks, or from the West, through Montana.

As the Kansas harvest nears completion, the transient harvesters dispose of themselves in various ways. A large number do not attempt to go beyond Kansas, and many experienced workers never have worked outside of the winter-wheat region. Some stay in Kansas through the thrashing season, thousands go home or take up other kinds of work, and others move on to the corn-growing sections of Kansas and of Iowa or return to the cotton region. Another contingent secures employment in Nebraska through employment offices or by going from town to town. As many who have not worked in

Kansas come into the Nebraska harvest about the same time, that State ordinarily has a large supply of men willing to accept wages lower than those paid in Kansas. Another lot of laborers go directly from Kansas to South Dakota, where they are at an advantage in the scramble for harvest work. As a rule, a larger number than can find employment go into South Dakota, soon to be reinforced by thousands from Nebraska, Iowa, and various other States. Some of the Kansas harvesters go into the cities to spend their earnings and later reappear in the northern harvest; others go directly to North Dakota to pick up the early work there. Many leave the harvest entirely.

The total labor contribution of the southern area to the northern harvest can not be computed, but it apparently constitutes a minor fraction of the total harvest labor supply of North Dakota.

CLIMATIC CONDITIONS.

Climatic conditions are the second main factor in the fluctuation of the demand for harvest labor from week to week throughout the season. For instance, in 1920 rain delayed the southern Oklahoma harvest for almost a week. Laborers began to come into the State in late May and early June, until by June 15 a large supply of harvest labor was present. Many men waited so long that their funds became exhausted, while others, growing discouraged, went home before the harvest. On June 29 hot weather called the men to the fields, where the heat soon forced the ripening of the grain as effectively as the wet weather had retarded it. From stagnation the harvest leaped suddenly into extreme activity, so that areas which normally are harvested in succession were ready for cutting at the same time. A dry, clear July enabled the farmers to push the harvest steadily forward, with comparatively little hindrance from the weather, until the middle of August.

In the northern area especially the time of harvest is influenced by the spring weather, which affects sowing and early growing conditions. An early spring in the Dakotas tends to bring the North Dakota and Kansas harvests closer together, a late spring to widen the gap between them.

Oklahoma owes a peculiar labor problem to the climate. The winter-wheat harvest in western Oklahoma and southwestern Kansas (fig. 1) is some two weeks later than that of central Oklahoma and eastern Kansas because of the high altitude and aridity of the western section of these States. Consequently, when the wheat harvest of central and north central Oklahoma is completed the harvesters move north into Kansas,[2] making it necessary for the Woodward district

[2] Topographic maps illustrating this fact are included in U. S. Dept. Agr. Yearbook, 1918, Separate 771, "Arable Lands in the United States," by O. E. Baker and H. M. Strong (Plates II and III).

either to find a new force or get men back from Wichita or Hutchinson when its grain is ready to be cut. Naturally it is difficult to persuade men to return from central Kansas to Oklahoma, as that would make it necessary for them to jump through central Kansas to northern Kansas or Nebraska at the completion of the western Oklahoma harvest. This difficulty is intensified by the fact that ordinarily higher wages are offered in central Kansas than in Oklahoma, and by the lack of good railroad facilities leading into the Woodward district. For the past few years this problem has been met by bringing in students from southern colleges.

EFFECT OF VARIATION IN TIME OF SOWING.

The volume of the demand for labor fluctuates also within each local community because of the irregularity in the time of planting the various fields. As the fields in any neighborhood which are sown on different dates do not ripen at the same time, certain lots of grain are ready to be harvested several days or a week before cutting becomes general, while others may not be ready until most of the neighboring fields have been finished. This condition causes the local demand for labor to open on a small scale, rapidly expand to its maximum, and then taper off to nothing.

One of the beneficial effects of this condition is that some of the men who work in the earliest cuttings later find something to do on other farms, after which they may secure thrashing work in the neighborhood, thus gaining steady employment for from one to three months. At the same time, however, it makes the short period of work the lot of the majority of the hands used in the heat of the harvest. Most of the men who come into a community when the cutting is at its height are forced to leave at the end of from 1 to 10 days.

CROP DAMAGE.

The demand for harvest labor within a State also is apt to be "spotty," because of damage by rust, grasshoppers, drought, hail, and other causes (Table 5) which ruin or materially reduce the crop in some counties. As there is little uniformity in the distribution of these losses from year to year and the harvest hands have no accurate information concerning the condition of the crop in the various localities, laborers frequently go to sections where they found plenty of work during the preceding season, only to learn that crop losses have wiped out the need for them.

This difficulty is augmented by the fact that the crop loss frequently occurs shortly before harvest time. Grasshoppers, rust, heavy storms, etc., need but little time to wreak great damage. For instance, in 1920 serious loss from rust occurred in 20 North Dakota

counties just before the harvest of the late wheat began, while grasshoppers invaded three or four of the northern counties at about the same time.

TABLE 5.—*Cause and extent of annual crop losses of wheat in North Dakota, South Dakota, Kansas, and Oklahoma.*[1]

Year.	North Dakota.				South Dakota.			
	Climatic conditions.		Insects, plant disease, etc.[3]	Total.	Climatic conditions.		Insects, plant disease, etc.[3]	Total.
	Drought, hot winds.	Other.[2]			Drought, hot winds.	Other.[2]		
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
1919	30.3	4.3	28.5	63.1	17.8	4.5	30.7	53.0
1918	28.8	7.2	4.1	40.1	3.6	2.9	3.0	9.5
1917	50.0	4.4	1.6	56.0	16.2	4.0	2.8	23.0
1916	9.3	9.2	49.5	68.0	10.3	5.0	38.9	54.2
1915	.8	4.0	6.4	11.2	.1	5.4	6.8	12.3
1914	16.6	6.1	9.5	32.2	26.8	5.6	14.5	46.7
1913	30.4	2.6	3.3	36.3	34.1	1.9	1.9	37.9
1912	3.7	10.5	2.0	16.2	25.3	5.1	4.4	34.8
1911	37.2	6.1	10.9	54.2	67.5	.3	2.2	70.0
1910	62.7	3.0	1.5	67.2	26.9	1.5	2.3	30.7
1909	7.8	7.8	4.0	19.6	7.3	9.9	3.3	20.5
	Kansas.				Oklahoma.			
1919	5.0	18.3	13.6	31.9	1.3	12.7	11.0	25.0
1918	22.9	4.4	1.4	28.7	33.5	4.5	4.3	42.3
1917	27.3	17.3	1.1	45.7	31.0	3.3	1.7	36.0
1916	9.9	13.1	12.1	35.1	20.9	9.6	9.4	39.9
1915	.4	29.9	9.3	39.6	.2	24.8	6.6	31.6
1914	3.0	1.4	3.3	7.7	6.3	2.3	3.7	12.3
1913	25.1	1.2	8.8	35.1	30.7	2.1	7.9	40.7
1912	14.8	9.9	6.7	31.4	19.3	4.6	7.9	31.8
1911	40.5	1.4	3.7	45.6	57.9	1.2	6.7	65.8
1910	18.4	24.7	4.9	48.0	17.1	2.2	3.9	23.2
1909	10.4	14.5	5.2	30.1	21.4	7.3	4.5	33.2

[1] Data furnished by Bureau of Crop Estimates, U. S. Department of Agriculture.
[2] Includes floods, frost, hail, storms, and winter kill.
[3] Includes defective seeds and unknown causes.

CONCENTRATION OF THRASHING DEMAND.

Although farmers may exercise more control over the time of thrashing than over the date of cutting, certain factors, alone or in combination, often give rise to more acute concentration of the labor demand in thrashing than in harvesting.

As the unthrashed bundles represent his year's earnings, the farmer is eager to know how much grain they contain. The farmer in the northern States also fears the coming of bad fall weather before thrashing is finished, and is anxious to get the summer work out of the way so that the fall plowing may be done early enough to permit the weed seeds to sprout before cold weather which kills them. Another important factor is the need for skilled laborers, such as separator and engine men, not required during the harvest. Consequently the demand for thrashing labor is very intense for a short time and then dies away. A large number of men are required for

from two to four weeks to do work which might be handled by a smaller force if it were spread over a longer period. The growing number of farmers who own small thrashing outfits increases the concentration of the thrashing-labor demand and decreases the total length of the thrashing season.

Even in 1920, when there was a plentiful supply of labor during the harvest season, much difficulty was experienced in many parts of North Dakota after August 20 in getting full crews for thrashing. This was caused in part by the marked increase in the number of small thrashing outfits, in part by the fact that hundreds of men in this area were loafing, either because they were holding out for more wages or because they had money in their pockets, and in part by the fact that many of the better class were hastening back to the cities to secure "inside work" for the winter. The Canadian employment service has relieved this situation in the Canadian wheat fields by requiring that some of the farmers wait until the thrashing of the others has been done.

HAPHAZARD DISTRIBUTION OF LABOR SUPPLY.

The harvest hands, coming from everywhere, many guided only by whims, chance, or guesswork, tend to become congested in some places, leaving other localities short of men. Consequently a labor surplus and a labor shortage may exist in the same general section of a State at the same time, and frantic calls for men may come from one town while another near by is wondering how it can get rid of the idle men on its streets. The locality which lacks men naturally reports the fact in the newspapers, which often produces a movement of men from many directions into that section, sometimes continuing until there is an oversupply of labor. Not infrequently the presence of this abundant supply of men tempts some of the farmers to reduce wages, resulting in an exodus which perhaps causes another shortage.

Most of the men attracted to a community for harvesting are let go as soon as the harvest is completed, and move on to other localities. Consequently, when thrashing starts, the wave of men has rolled past, making it necessary to obtain a fresh supply of workmen.

This general lack of system in the distribution of the harvest force over the harvest area, together with the fluctuations in the demand for men, causes much fruitless chasing of jobs, engendering bitter disappointment, and perhaps a sense of injustice.

CHARACTER OF HARVEST LABOR.

The harvest labor force, which never has been and probably never can be counted, but which is believed to include from 150,000 to 200,000 individuals, consists of four groups: (1) Residents of towns of the

small-grain States who hire out to farmers in near-by territory; (2) men who make contracts with farmers from year to year, and know just when and where they can begin the season's work; (3) transient laborers—farmers, mechanics, and others—who leave their regular employment to work temporarily in the harvest fields; (4) transient laborers who are "professionals," in that the harvest is regularly or frequently a part of their year's work.

LOCAL AND CONTRACT HANDS.

Residents of the towns of the small-grain States who hire out to farmers in their own localities constitute a large fraction of the total army of harvest hands. Part of these men follow the harvest northward, but a large proportion remain in their own or neighboring States. Most of them probably either obtain steady work or else return at comparatively small expense to their homes and regular occupations. They are on the spot and in a better position to locate work than those who come to the harvest from a distance. They "know the ropes," and doubtless experience less unemployment than is indicated by the averages in Table 4.

There are also thousands of good men who make contracts with the farmers for whom they work for the following year. A large proportion of these contract hands stay with the farmers hiring them for the harvest through the thrashing and even for corn picking, fall plowing, and other work. Although some follow the harvest north after finishing their first piece of work, others accept steady employment in the same neighborhood.

Several farmers near Ellendale, N. Dak., stated that they had made advance contracts with the same men for a number of years. Moreover, three of the most successful farmers in that community had come there originally as migratory farm laborers, made advance contracts for the following harvest, then contracted in advance for the whole crop season, and finally had put a season's earnings into horses and equipment, rented land, and taken up farming for themselves. One of these men had more than 400 acres of wheat in 1920.

Working for from 45 to 100 days, sometimes more, at high daily wages and spared the expensive railroad fares and hotel bills which fall to the lot of the migratory harvest hand, the local and contract laborers are the ones who really "make a stake" in the harvest.

TRANSIENT HANDS.

The transient harvest hands fall into two groups: (1) Farmers, mechanics, and farm and other laborers who have left their regular occupations temporarily to make the harvest; and (2) the seasonal laborers, to whom the harvest is a regular or important part of the

year's work. Both of these groups are forced to seek employment wherever it can be found in the harvest States and to move from place to place, filling the farmers' needs for extra help. In other words, the transient workers constitute the short-time help which the farmer hires to carry his "peak load," while the local and contract groups get the bulk of the steadier harvest jobs.

The place of residence of 2,407 transient harvesters was investigated. Some of the men interviewed said that they had none, which was literally true. The following summary shows the States from which the greater proportions of these harvesters came:

Missouri	421	Oklahoma	80
Illinois	251	Arkansas	79
Ohio	173	Wisconsin	73
Iowa	180	New York	66
Kansas	143	Pennsylvania	66
Indiana	129	Texas	64
Total	1,297	Total	428
Fifty-four per cent of total.		Eighteen per cent of total.	

These 12 States contributed two-thirds of the transient harvesters. Of the first 400 men placed in the harvest by the Sioux City employment office, 307 came from the Missouri group of States, Minnesota and Nebraska. The rest of the 2,407 men came from every State in the Union, a few from each State. Forty-three were foreign born. During the 1919 harvest the Kansas City office of the United States Employment Service recorded the places of residence of 14,613 men sent into the harvest fields. The figures show that 8,787, or 56 per cent, came from Missouri, Illinois, Iowa, Ohio, and Kansas, which States contributed 1,052 of the 2,407 men interviewed in 1920. While the 14,613 men included some from every State in the Union, 84 per cent came from 16 States in the Middle West, and only 16 per cent from the remaining 32 States.

Is it true that 50 per cent of the transient harvest force come from Missouri, Illinois, Iowa, Ohio, and Kansas? The figures show that although these States contribute large contingents to the harvest field, they do not contribute a correspondingly large percentage of the total force. The data for 1920 were gathered for the most part from harvesters who visited the United States employment offices at Kansas City, Mo., Colby, Pratt, Wichita, and Salina, Kans., and Sioux City, Iowa. Some of the interviews occurred in Aberdeen and Redfield, S. Dak., and in Fargo and other cities in North Dakota. As the figures for 1919 were compiled at Kansas City, Mo., the men interviewed were almost entirely those who entered the harvest fields from the East and South. Kansas City, Sioux City, and Fargo are gateways from the East into the harvest fields. The men of Ohio,

Illinois, Indiana, New York, and Pennsylvania either pass through Chicago or go by way of St. Louis or Omaha to Kansas City, Sioux City, Sioux Falls, or other cities in the eastern section of the small-grain area. The Wabash; Chicago, Milwaukee & St. Paul; Chicago & North Western; Rock Island; Great Western, and other roads constitute direct feeders from the East into the harvest fields. Thus a great many of the harvest hands encountered in the cities which are the eastern gateways of the harvest come from the territory to the east. On the other hand, many Oklahomans and Texans go into Kansas City to find work in Kansas and Nebraska after they have finished their labors in the southern territory. It is not strange, therefore, that only 26 of the 2,407 men in 1920, and 67 of the 14,613 men in 1919 came from California, and that of the 2,407 men only 9 came from Wyoming, 5 from Washington, and 3 from Oregon.

MOTIVES.

The motives which bring the harvest hand to the wheat fields are as varied as human life. This investigation showed the presence in the fields of farmers whose crops had been ruined or impaired by hail, drought, storm, or fire; some who had not enough land under cultivation to afford them a livelihood, and others who were seeking new locations; students and young men who were looking for experience, a vacation, a chance to see the world; prodigal sons trying to earn enough money to return to the homes they had forsaken; soldiers and sailors who had developed a thirst for roaming while in the Army and Navy; and men attracted by the lure of the great out-of-doors or the pleasure of harvesting.

The desire for adventure and experience brings thousands. The grain harvest of the Central West is one of the few big adventures left in American life. The frontier and the Indians have been conquered; the lands of the West have been put under the plow; the secret resting places of the gold and silver have been explored and exploited; and the harvest mobilization now remains the most dramatic, adventurous experience in the industrial life of the Nation. From every State in the Union men of a hundred different occupations come to rub elbows for a few days or weeks in the garnering of millions of bushels of grain over a territory adequate for an empire, and then vanish one by one back into the everyday walks of life. The quiet pursuits of agriculture become dramatic; imaginations are fired; the glamour and lure of adventure prevail over the humdrum of life.

The fascination which harvesting itself has always had for the human race is another attractive force. Men enjoy garnering na-

ture's products, and the gathering together of groups of workers to care for the harvest has always been one of the joyful experiences of the race. The mere pleasure of participation with hundreds of thousands of others in harvesting millions of bushels of grain is a strong incentive.

Asked why he has come to the harvest, the seasoned "floater" probably will answer that "the harvest is a habit," that he swears each year he will never come again, but can not seem to resist when the time comes. It fascinates him with its multitudes, its unknown possibilities, its chance that "something may turn up."

The hope of large earnings and the lure of adventure attract men to the harvest; *unemployment drives them.* A large number of factory hands, particularly from automobile and tire factories, came to the harvest of 1920 because they were out of work. The chance to make money in the harvest came just when they lost their employment. This, of course, is true of many harvesters every year, and it was because other industries were busy that a serious shortage of harvest labor was feared in 1918 and 1919.

Of the thousand and one incentives which lead tens of thousands of men to take part each year in the small-grain harvest, these three stand out most prominently: (1) Lack of other employment, either permanent or temporary; (2) the hope of making "big money"; and (3) the desire for adventure and experience. In addition, many thousands of seasonal workers flock to the wheat fields as part of the year's cycle of employment.

CHARACTERISTICS.

Fairly complete autobiographies were obtained from 153 harvest hands who came to the public employment offices in Kansas City, Sioux City, Aberdeen, and Fargo (Tables 6 and 7).

TABLE 6.—*Age of becoming wage earners, education, and occupational training of 153 transient harvest hands.*

Age of becoming wage earners.	Number of cases.	Education.	Number of cases.	Occupational training.	Number of cases.
Years.					
Under 14	26	None	2	Raised on farm	94
14	29	Less than fifth grade	11	Trade apprenticeship	7
15	30	Fifth to eighth grade	103	None	52
16	24	Ninth or tenth grade	13		
Over 16 years	33	Finished high school	5		
In school	11	Commercial college	2		
		In college	11		
		Unknown	6		

TABLE 7.—*Age of 919 harvest laborers.*[1]

Age group.	Group 1.[2]		Group 2.[3]		Group 3.[4]		Total.[5]	
	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Years.								
Under 20	5	3.3	22	9.2	62	11.8	89	9.7
20–24	25	16.3	93	39.1	169	32.0	287	31.2
25–29	21	13.7	43	18.1	117	22.2	181	19.7
30–34	17	11.1	33	13.9	60	11.2	110	12.0
35–39	30	19.6	11	4.6	55	10.4	96	10.4
40–44	15	9.8	15	6.3	17	3.3	47	5.1
45–49	19	12.4	9	3.8	24	4.6	52	5.7
50–59	18	11.7	7	2.9	20	3.8	45	4.9
60–69	1	.7	4	1.7	4	.7	9	1.0
70–79	1	.7	1	.4	.....	.....	3	.3
83	1	.7	.....	.....	.....	.....		

[1] All of the 919 men whose ages are presented in this table were interviewed during the harvest of 1920.
[2] Consists of 153 men from whom life histories were obtained.
[3] Consists of migratory laborers.
[4] Consists of 528 applicants for harvest work at various public employment offices.
[5] Representative index of the ages of harvest laborers.

Of these 153 men 13 were farmers, most of whom owned small farms or partially-developed homesteads, who were "making the harvest" to obtain cash to develop their farms or to eke out the meager incomes from their lands; 20 were mechanics, factory hands, or members of some other mercantile occupation, for the most part temporarily unemployed; 11 were college or high-school students out to earn money to complete their education. A father and son, traveling by automobile in search of a permanent location, were working in the harvest to replenish their purses. A young man who owned part of a transfer business was after cash to put into the venture. The owner of a half interest in a thrashing outfit and sawmill in Saskatchewan makes the harvest each season as a regular part of his year's work. An ex-United States marine, 29 years old and with no civil occupation, was taking a final fling at civil employment before reenlisting.

To many men of this type the harvest offers an opportunity for self-advancement. Farmers with insufficient capital or those whose farms can not provide an adequate income are helped through the critical period in their farming operations by their harvest earnings. Some in time will become successful farmers; others always will need to eke out their regular incomes. Students receive assistance through college; young men in business add to their working capital; and mechanics and factory hands meet the emergency of temporary unemployment.

Agricultural and employment officials in the southern wheat area frequently commented upon the increasing number of college men making the wheat harvest. The county agent at Enid stated that

90 per cent of his preharvest correspondence with harvest hands had been with college men. Three hundred college men were sent in one group into the Woodward district in Oklahoma and over 800 were placed by the State employment service. Between one-third and one-half of the harvest placements of the Enid office were college men. In the opinion of the labor officials and county agents, the presence of these men had raised the tone of the harvest work materially in the areas affected.

To the majority of the harvest army the harvest means sustenance. Of the 153 men interviewed 103 were of this type. Forty-eight had regular occupations and either spliced harvest or other seasonal work into periods of unemployment or came to the harvest because they could thereby increase their annual incomes. For instance, one who worked regularly in a brickyard was forced to seek other employment during the war. When the brickyard resumed operations he returned to it. Another fed cattle for the market for stockmen, and made the harvest largely for his health. A third worked in steel mills, coming to the harvest because work in his regular craft was slack. Many others were farm hands who hire out by the month on farms, changing farms more or less frequently, and who had left their places permanently or temporarily in the hope of making more money. The other 55 of the 153 men interviewed were confirmed migratory laborers. To use their own expression, they were "on the road"; to use the designation common in the wheat area, they were "floaters." The "floater" is a rover, who seldom works very long on any job, having for his goal a "stake" to tide him over the winter or furnish him with a good time. His preference is for work where board and lodging are furnished by the employer.

Every one of the 153 started life in an humble home; 94 on farms and the others in cities or villages. Sixty-two of the 103 migratory laborers were born and raised on farms. Less than a dozen of the 153 came from homes that might be called comfortable. Seventeen found their first employment in factories, 10 in grocery stores, 6 as office boys, 3 in mines, and 94 on farms.

Twenty-nine of the 153 were born in foreign countries. The majority of these men grew up on farms, although a few came from cities and 2 from the families of sailors. Thirty-nine of the 124 who were born in the United States came from the wheat belt States, 56 from States surrounding the wheat belt, and 16 from eastern and Pacific Coast States. The remainder said simply that they were "American born."

The regular occupations of three groups of transient harvest hands are given in Table 8.

TABLE 8.—*Regular occupation of transient harvest hands.*

Occupation.	Group 1.[1]		Group 2.[2]		Group 3.[3]	
	Number.	Per cent.	Number.	Per cent.	Number	Per cent.
Farmers and farm laborers	844	30.6	186	46.5	5,360	36.7
Laborers, city and floating	785	28.5	51	12.8	4,409	30.2
Factory operators	173	6.3	24	6.0	8	(4)
Mechanics	432	15.7	71	17.8	2,192	15.0
Students	242	8.8	40	10.0	818	5.6
Chauffeurs	63	2.3				
Office help	57	2.1	11	2.8	435	3.0
Bookkeepers, etc	14	(4)				
Teamsters	40	1.5	2	(4)		
Miners	37	1.3			379	2.6
Linemen	13	(4)				
Teachers and professional men	24	(4)	4			
Railroad men	11	(4)	2		341	2.3
Government employees	8	(4)	3			
Contractors	6	(4)				
Sailors	3	(4)				
Business men	2	(4)			190	1.3
Others			6		481	

[1] 2,754 harvesters interviewed in 1920, in Oklahoma, Kansas, North Dakota, and South Dakota.
[2] First 400 harvesters placed by Sioux City employment office, in 1920.
[3] 14,613 men placed by Kansas City, Mo., employment office, in 1919.
[4] Less than 1 per cent.

Some of the 153 harvest hands interviewed had acquired property, but the majority had not. Nineteen had bought farms and 12 had homesteaded farms, while 17 had rented farms. Four of those who had bought land never farmed it, and 13 were farming at the time. Most of the remaining 31 who had tried farming had made a failure of it. Although some admitted that they lacked ability, most of them attributed their failure to drought. Whatever the reason, the fact remains that 27 of the 43 men who attempted farming were unsuccessful and that 12 others came so close to failure that they were piecing out their farm incomes with harvesting. Of course, this situation is not always the fault of the farmer. Two Montana farmers interviewed had been "hailed out," one three years in succession, making it necessary for them to come to the harvest to support their families through the winter.

Fifty-nine, including the 31 who owned farm land, stated that they owned real estate, Government bonds, or cash. The ages of 21 men whose entire savings were less than $500, ranged from 35 to 70 years. These 21 men had simply "a little nest egg against a rainy day," as one of them expressed it. Three others were worth more than $500 but less than $1,000; seven had from $1,000 to $1,800; four from $2,000 to $3,000; one had a house and lot and $2,000; one had $5,000; one, $7,100; one, a dairyman, $10,000; one, a section of land, $4,000 worth of farm equipment, and $4,000 in cash; one a flat building in Chicago worth $35,000; and another some Pennsylvania coal lands and urban property worth $43,000. The other 16 owned real estate of uncertain value. Eighteen of the men who claimed that they had saved some-

thing were "floaters," whose savings averaged $345. The only one of them possessing more than $500 had put $1,500 of his earnings in a bank years ago. Three had less than $100. In contrast with the "floaters," 11 farm hands reported average savings of $4,475 each, and 3 others owned farms or urban property.

Only three had made an outstanding financial success as a result of their knowledge of farming, and none was an operating farmer. One had been a foreman on one of the largest wheat farms in North Dakota for seven years, leaving it to operate a farm in Saskatchewan, which he later left to enlist in the Canadian Engineers. He is worth over $10,000. The second, skilled in handling purebred cattle, had been able to earn more than the "going wages" and had saved over $10,000. Although he had worked for 22 years on farms, he never had operated one for himself. The third, raised on a farm, had acquired a comfortable fortune by trading in real estate. Eleven other farm hands had accumulated sums three or four times as large as the savings of the industrial laborers.

Very few criticized the farmers as employers. Nearly all of the men said that the farmers had generally "treated them square." Many of the older men qualified this statement by saying that they "treat labor better than they used to do." The men were practically unanimous in saying that they were well fed. Complaints against sleeping quarters were more frequent.

MOBILIZATION OF HARVEST LABOR.

The outstanding labor problem of the wheat harvest is the mobilization of an adequate but not excessive supply, followed by a proper distribution of the workers over the harvest areas, not only once, but again and again. This problem consists, on the one hand, of dividing the available force in an equitable manner so that each wheat farmer may have the number of men that he needs, and, on the other hand, of helping each harvester to work as steadily as possible with a minimum expense of travel and board. The number of men needed varies year by year with the acreage planted to wheat, the condition of the crop, the length of the straw, and the amount of unemployment in the cities and towns in or near the wheat belt.

FORECASTING THE NUMBER OF HARVEST HANDS NEEDED.

Prior to the opening of the harvest many attempts are made to forecast the number of harvest hands that will be needed from outside the wheat States. Some of these estimates are wild guesses, based upon no definite knowledge of the amount of labor needed in the various portions of the wheat area or of the number of harvest hands who move northward, supplying labor to one section after another. The only

known definite formula for computing probable harvest demands was evolved at a conference of county agents at Manhattan, Kans., in November, 1919, and later used in Kansas. This formula gives a reasonably conservative estimate of the amount of labor needed. The office of Farm Management and Farm Economics had found that the average header crew consists of 6 men; the county agents of Kansas had found that a county is usually harvested in about 10 days; and it was found that a crew harvests, on the average, 30 acres a day. Assuming a supply of labor on the farm averaging 1.3 men to a farm, the following formula was devised:

Divide the number of acres of wheat in the county by 50, subtract the man power on the farms and that available from towns within the county. The difference represents the men needed from outside the county. This formula may be expressed as follows:

A = number of acres of wheat within a county.

mf = man power of the farms (number of farms multiplied by 1.3).

mt = man power available from towns within the county.

mo = number of men needed from the outside.

$$\frac{A}{50} - (mf + mt) = mo.$$

While this formula would not apply accurately to counties that do not use the headers, it is better than wild estimates for computing the demand in any wheat county.

Applying this formula to the 8,943,000 acres of wheat harvested in Kansas in 1920, the State farm demonstrator estimated a need for 50,000 men in addition to those resident in the wheat counties. If this figure be correct, Texas and Oklahoma probably needed from 20,000 to 30,000 men, at least half of whom would go north into Kansas, while the Nebraska and South Dakota demand would not exceed half of the Kansas demand.

North Dakota's demand might require as many outside men as that of Kansas, as there is more shocking in North Dakota and the State is less densely populated than Kansas. John Hagen, commissioner of agriculture and labor of North Dakota, estimated a need for but from 15,000 to 20,000 men for August in North Dakota in 1920,[3] apparently a conservative estimate, but lacking the accuracy of the Kansas method. Forty-two North Dakota farms, with a total acreage of 56,908 acres, 20,642 acres of which were in small grain, employed 164 men, or one man for each 125 acres of small grain. On this basis the 12,279,000 acres of wheat, oats, barley, and rye in North Dakota in 1920 required a labor force of 98,000 men, in addition to the families and regular hands on the farms. It must

[3] Hutchinson (N. Dak.) Tribune, July 20, 1920.

be remembered, however, that many transient harvest hands, probably at least two-thirds of them, work on several different farms, so that 25,000 or 30,000 men no doubt can take care of the North Dakota work. On the other hand, men are leaving the harvest fields every day of the season, making it necessary for new men to take their places.

While it probably is correct to state that from 100,000 to 200,000 individuals find employment in the harvest, there is no basis for saying that the demand for harvest labor reaches such large figures on any one day. On the other hand, thousands of harvest hands remain to thrash where they have harvested, and the contemporaneous demands of thrashing and harvesting increase the total demand for labor during the last four or six weeks of the harvest far beyond the harvest demand proper. Thousands of the men who take part in the harvest in Oklahoma, Kansas, and Missouri do not need to go into the northern harvest, as they can find plenty of work thrashing and cultivating corn in the winter-wheat area. Ordinarily, however, their places are more than filled by the thousands who enter the northern harvest without having worked previously in Kansas.

MOBILIZATION MACHINERY.

Unquestionably the newspapers are the most important means by which men are attracted to the harvest. They begin in May and early June to publish statements of the prospective labor needs and wage scales in the harvest area. Active advertising of harvest work by employment agencies, public and private, also stimulates the flow of men toward the grain fields. A third important influence which arouses interest in the harvest in the minds of workmen is conversation with men who have been to the harvest. More than a million individual wage earners in the United States have "made the harvest" one year or another, and many of them have found their experience satisfactory. Scattered through the various industries, on farms, in railroad and construction work, or in factories, these men tell their companions about the harvest, often enlisting a "buddy" to return with them. The harvest furnishes the theme for many an animated discussion in the shanties of the lumber camp, in the Chicago, Omaha, or Minneapolis lodging house, during the factory lunch hour, or in the pool room. No one can foretell how many men this sort of advertising will bring in any given year, whence they will come, or when they will arrive. But each season it recruits thousands. The railroads running through the grain belt gather estimates of the crop conditions and prospective labor demand in each locality from their local agents in that area, and are thus able to make a reasonably accurate advance approximation of

the demand along their lines, although they are unable to tell exactly how many men are needed and the extent to which the demand has been filled at any given time or the agencies which are working to satisfy the demand.

Most of the men interviewed said that they had received the information which prompted them to come to the harvest through conversations with friends, acquaintances, or fellow workmen or through the newspapers. Those who previously had been in the harvest relied upon their own experience, supplemented by information which they obtained from newspapers, and occasionally from local United States employment offices. Those who had not been to the harvest before depended chiefly upon what friends told them. Many of the college students had written to United States employment offices in the harvest area for detailed information. The migratory laborer talks indefatigably, and the rapidity with which industrial information spreads among this class by word of mouth is astonishing. Like the greenhorn, the floating laborer depends largely upon hearsay for guidance as he goes to the harvest, but he is able to test the value of the statements of others by comparing them with his past experiences. The more intelligent among them, moreover, seem to discount the statements which other workmen make, and feel safe in drawing conclusions only after they have talked with many men.

Harvest hands often complain that much of the information to which they have access is not dependable. Newspapers frequently are misinformed, and sometimes do not possess all the facts bearing on the situation. It is particularly easy for papers distant from the wheat belt to accept distorted statements of the harvest situation.

A. L. Barkman, zone clearance officer of the United States Employment Service at Kansas City, in discussing this type of advertising in his annual report, dated August 10, 1920, says:

> This year, unfortunately, a great many men were induced to enter the fields two weeks too early by independent and wildcat advertising on the part of persons who were more concerned in securing a surplus of labor than in an equitable distribution and a square deal to the men. Independent advertising is hard to control and men who are induced to go to the wheat fields by inspired news stories, paid advertising, etc., unless such advertising bears the indorsement of the Employment Service, always take a chance of being the victims of selfish communities or individuals.

J. H. Crawford, Federal State director of the employment offices of Kansas, called attention to the same evil in his annual report for 1920:

> A number of erroneous articles were published in the daily papers and several localities issued handbills several weeks in advance of the harvest, and this brought men into the field too soon, some not being prepared financially to maintain themselves away from home. * * * This advance publicity is a matter, of course, we were unable to control, on account of it coming from so

many sources. We were very careful, at all times, in giving articles to the press, to give only the exact conditions.

To be reliable, advertising must be centralized and coordinated. To give out accurate forecasts of the need for harvest labor, all agencies need information upon the acreage to be harvested, the condition of the crops in each locality, the available local labor supplies, weather conditions, the agencies which feed labor into the harvest, the experience of preceding years, the unemployment that prevails in the cities of the central part of the country and the wages current there, and the extent to which the labor employed in the southern wheat area can be used in the northern area. Only a Government office in touch with responsible correspondents throughout the wheat belt and able to combine and analyze their reports is in a position to appraise correctly the harvest labor needs or to forecast harvest wages.

Prior to 1917 little had been done to provide authoritative information about the harvest for prospective laborers and for the guidance of employment agencies. Meetings of State employment officials had been held at Kansas City in 1915 and 1916, but not much more than the exchange of information and the creation of personal contacts among the officers of the several States was accomplished. As a result of the activities of the Federal Department of Labor, begun in 1917, 49,000 posters announcing the labor needs of the wheat belt were sent to as many post offices in 1918 and 1919, resulting in inquiries from over 20,000 individuals. Later, 17,000 posters announcing the location of wheat-belt employment offices were put up in the States from which the bulk of the harvest hands were expected. Of the 93,000 men who came to these offices 46,242 were definitely placed.

During the winter-wheat harvest daily bulletins are issued by the Employment Service, in cooperation with the farm management demonstrator of Kansas, but this bulletin service has not yet been established in the spring-wheat area. These bulletins give specific, up-to-the-minute information on the demand and supply of labor, wages, weather conditions, and the stage of the harvest, to the harvest hands, farmers, employment offices, county agents, and newspapers. They prevent much of the aimless wandering of men in search of work which results in oversupply at one point, while grain is being shattered and lost at other places because of a lack of men.

DISTRIBUTION OF HARVEST LABOR.

DISTRIBUTION MACHINERY.

The information service already described is an important means of harvest-labor distribution. A large proportion of the harvest

hands do not attempt to secure information at the employment offices, but go out into the small towns, where they are picked up on the streets by farmers. If they do not find work in one town they go on to another. Daily bulletins which tell where men are needed and what communities already have enough labor enable them to go where there is some chance for work rather than where there are too many men. Of course, as long as men wander from town to town, guided only by general information, contemporaneous shortages and surpluses of labor will exist.

Sometimes the scattering of the labor force through the small towns in advance of specific orders from farmers benefits both the men and the employers. During the early part of June, 1920, when rainy weather delayed cutting, thousands of men left such distribution centers as Kansas City and Wichita and went out into the small towns in the heart of the wheat belt. When the rainy weather was succeeded by a sudden hot wave the men were ready to step into the fields in many parts of the wheat area. Under ordinary circumstances, however, the most efficient distribution of the labor is attained when the farmers place their orders with local representatives of the Employment Service and the men go directly from the employment offices to the localities where they are needed.

The organized machinery of labor distribution in the wheat belt consists of State and Federal employment services working in cooperation. The United States Employment Service, having its central office at Kansas City, has endeavored, with marked success, to coordinate, centralize, and make effective all public employment agencies in the grain belt, and to establish complete cooperation with the representatives of the United States Department of Agriculture and State and local agricultural officials. The United States Department of Agriculture has furnished the employment services with crop information, and the county agricultural agents and farm bureaus have assisted in placing harvest hands on farms.

Several of the States in the grain belt have State employment offices. Oklahoma has two, one at Enid and one at Oklahoma City; Kansas, six, at Topeka, Kansas City, Parsons, Wichita, Salina, and Hutchinson, with the Kansas City, Mo., office for all practical purposes a part of its system; and Nebraska three, one at Omaha, one at Lincoln, and one at Fairbury. Sioux City, Iowa, is the basic distribution point for harvest labor for Nebraska and South Dakota; while South Dakota has offices at Sioux Falls and Mitchell, and North Dakota one at Fargo.

As the permanent offices are too few to meet the needs of the harvest situation, temporary offices have been established in each of the last three years for the harvest period. Some of these have been financed from Federal funds, others from State funds, and many

from Federal and State funds combined. Such temporary offices were established in 1919 in Oklahoma at Alva, Carmen, Kingfisher, Woodward, and Guymon; in Kansas at Liberal, Goodland, and Dodge City; in South Dakota at Aberdeen, Redfield, and Watertown; in North Dakota at Oakes, Jamestown, and Grand Forks. In 1920 temporary offices were maintained at most of these towns, as well as in Bismarck and Minot, N. Dak., and Fort Worth and Amarillo, Tex. Extra clerks also have been added to the more important permanent offices, such as Kansas City, Wichita, Salina, Hutchinson, Sioux City, and Fargo, during the harvest.

These Federal and State employment offices, however, are merely central distributing points for harvest labor, and must be supplemented by local distributing agencies in each county. The county agricultural agents, farm bureaus, local chambers of commerce, local bankers or business men, and other organizations or individuals have been made local representatives of the various employment offices. These local representatives receive the orders of the individual farmers for men and telephone or mail them to the labor distributing points. The men are then sent to the local representatives, who place them on the individual farms. Relatively few men are sent directly from the employment offices to the farmer.

One of the most serious needs of the labor-distribution organization in the wheat belt is the establishment of a large, well-equipped office at Kansas City, Mo.

TRANSPORTATION OF HARVEST LABOR.

The expenses of the large number of harvest hands who come long distances to the harvest are heavy before they begin work. (Table 9.)

TABLE 9.—*Expenses incurred by 2,643 transient harvest hands, before beginning work in the harvest.*[1]

Expense.	Number of cases.	Percentage of cases.
Less than $10	663	25.1
$10 to $14.99	248	9.4
$15 to $19.99	424	16.0
$20 to $24.99	324	12.3
$25 to $29.99	228	8.6
$30 to $34.99	164	6.2
$35 to $39.99	92	3.5
$40 to $44.99	117	4.4
$45 to $49.99	38	1.4
$50 to $59.99	316	12.0
$60 to $69.99	18	.7
$70 to $79.99	2	.....
$80 to $89.99	1	.....
$90 to $99.99	5	.....
$100 or more	3	.....

[1] An effort was made to ascertain the expenses of these men while following the harvest, but very few were able to give any satisfactory data on the subject.

Even if they live in the wheat belt men who travel through the harvest area, an empire in itself, incur relatively heavy traveling expenses. The high cost of travel discourages many of the best class of harvest hands from coming to the harvest a second time, while lack of money keeps many from going to points where they are badly needed. Thousands ride the freights or the "blind baggage" instead of paying their fares. It is a common practice of railroad crews to collect a dollar a man for such a ride from one division point to another. Men traveling in this way tend to drift through the harvest field, guided by chances to ride free rather than by known opportunities of employment. They waste their time and decrease the control of the distribution agencies over the labor supply. Often the grain they might be harvesting shatters while they are trying to "beat their way."

The employment officials, the farmers' organizations, and the agricultural officials are unanimous in the opinion that the harvest labor situation would be improved by the inauguration of harvest labor excursions to and from the harvest fields, which would bring the labor when it was needed and deposit it where it was needed. Kansas particularly has been trying to get special harvest rates for some time. At a meeting on March 15, 1920, at Hutchinson, Kans., it was decided to try for a 1-cent fare for harvest hands, but no agreement was reached with the railroad companies for a reduced rate for 1920. The issue, however, can not be considered closed. The following ruling from the secretary of the Interstate Commerce Commission shows the legality of such special rates: "It seems clear that the carriers could not lawfully grant reduced fares to farm laborers as such. The law, however, specifically allows carriers to establish rates or fares, and it might be possible for the carriers to establish special excursion fares that would be good to any who might desire to avail themselves of the fares."

In Canada the reduced-fare excursion has been found to be the most effective means for controlling the supply and distribution of labor in the harvest. The railroads run special harvest excursions from eastern to western Canada when labor is needed and check the flow of labor by taking off some or all of the excursions whenever the employment service signifies that it has enough men. If the railroads and the United States Employment Service were able to reach a similar understanding reduced-fare excursions from Chicago, Minneapolis, St. Louis, Omaha, Denver, and other points could be run at exactly the right time to move men to the harvest when they were actually needed, and the destination of the excursions could be fixed so as to provide an equitable distribution of the labor supply. At the same time it would be possible to check an excessive inflow of labor by stopping the excursions.

HARVEST WAGES.[4]

The workingman can not see why a given kind of work should draw higher pay at one time or place during the harvest than at another. When Kansas could give 70 cents an hour during the 1920 harvest, a 60-cent wage in Oklahoma or a 50 or 55 cent wage in the Dakotas looked like exploitation to the men. They could understand that a farmer with a poor crop can not afford to pay as high wages as one with a good crop, but the offers vary with the areas rather than with individual farmers. Why should wages be different in every State? Why should they vary in different counties in the same State?

The question is just as vexing from the farmer's point of view. "Why," says the Kansas farmer, "should I pay 70 cents for harvest labor, and the North Dakota wheat farmer pay only 50 or 60 cents?" "Why," says the North Dakota farmer, "do the Kansas farmers spoil the wage market by offering such exorbitant wages? We could get plenty of men for 50 cents if they had not paid 70 cents, but now we must pay 60 cents. They have encouraged the men to ask for excessive wages."

Similar variations in wages occur within a State and even within a county or township. Farmers in the same section offer different rates of wages, frequently stealing labor from one another by offering more than their neighbors. Harvesters in one locality accept a wage that others 10 miles away reject. In every section in North Dakota and Minnesota where wage data were collected the wages paid on different farms in the same neighborhood varied. In most cases the wages were fixed by individual bargains between the farmer and the men he hired. No generally accepted standard wage controlled this matter. Where the men were organized and had agreed upon a standard wage, the farmer was helpless in dealing with them; when men were plentiful and the farmers agreed among themselves, the men were forced to accept the wages offered.

In placing their orders with employment offices, and even when hiring men on the streets, many farmers in North and South Dakota offered "going wages" without specifying what they meant by the term. Sometimes the farmer's motive seemed to be a fear that if his neighbors found out what he was paying they might offer his men more. More frequently he was actuated by fear that he would offer more than others were paying, by a consciousness that he did not know what he ought to pay. This uncertainty, although not so common in Kansas, because of the 70-cent wage fixed by the Hutchinson meeting, prevailed more or less everywhere in the wheat belt.

[4] U. S. Dept. Agr. Bull. 943, "Cost of Producing Wheat," by M. R. Cooper and R. S. Washburn, gives a careful analysis of the labor cost in wheat growing.

It would appear, therefore, that two distinct needs with respect to harvest wages in the wheat belt should be satisfied as far as is practicable: (1) The need for a standard wage, known to everyone concerned, in each locality; (2) the need for wages as uniform as possible, with due consideration of the varying conditions in the different localities.

STANDARD WAGES.

There can be little question of the desirability of having a standard set in each State, either a standard wage for the State as a whole or standard wages for sections of the State. The farmer will then know what he must pay and what those who compete with him for labor will pay, and the harvester will know what wages to expect. If either of the interested parties is dissatisfied with the standard wage, it at least offers them a basis for bargaining.

In Kansas the standard wage which has been fixed by State meetings of farmers, in general, is set at the amount required to attract men away from city employment and pay for their railroad and other expenses to and from the wheat belt. In times of labor surplus in cities this wage may be low, but in normal times the harvest wage is higher than that for general unskilled labor.[5]

The purpose of the Kansas wage meeting is not to fix a low standard wage and force it upon the laborers, but to discover what wages are necessary to attract labor from outside the State to the harvest. A standard wage set too low in any year will cause a shortage of help and higher bidding on the part of the farmers to get the few men who come; one set too high will result in a surplus of men, a tendency to pay much less than the established wage, and loss of time to harvest hands. According to E. L. Rhoades, "the farmers of Kansas consider the wage conference not as collective bargaining but rather as a method of aiming at a reasonable conclusion as to what wages supply and demand would set in the State, if supply and demand had time to work the matter out to its logical conclusion. The farmers do not consider this a method of bargaining but as used to stabilize a price which will attract enough men to the State, and not too many."

UNIFORM WAGES.

None of the agricultural or employment officials interviewed believed that uniform wages are either desirable or practical. The

[5] Kansas Agric. Coll. Extension Circular 23 (March, 1921), "Kansas Handbook of Harvest Labor," by H. Umberger and E. L. Rhoades.

eastern sections of the wheat States are able each year to get labor more cheaply than the western sections can, while the wages in central and western Kansas and in the northwestern counties of North Dakota tend to be higher than those in the rest of the wheat belt. Since the bulk of the labor supply enters the wheat belt from the east, while the heavy wheat acreage, particularly in Kansas, is in the central and western counties, it costs less and is easier for harvest hands to reach work in the eastern counties, making it necessary for the central and western counties to add a little to the wage paid east of them. Furthermore, since the eastern counties have a much larger local labor supply, transient harvest hands must compete for work there, which tends to keep down the wages. Wages are lowest in the eastern counties, conform roughly to a "standard" wage in the central counties, and tend to rise above the standard in the more sparsely settled and less accessible western counties and at the outer extremities of spur lines of railroad, from which points movements to new territory is difficult.

Wages also vary from State to State, and this variation provokes much discussion among the harvest hands. The 45 cents an hour wage fixed by the Casselton, N. Dak., meeting for that portion of Cass County, caused many of the harvest hands working in the States to the south to refrain from going to North Dakota, because they thought 45 cents was a State wage. If a State with a small acreage, like Nebraska, however, attempted to pay wages as high as those paid in Kansas, it would be overrun with men unable to find work. The drop in wages which occurs between the Kansas and Nebraska harvests operates as a natural check to prevent thousands of Kansas harvesters from spending their money and time in a fruitless search for employment in Nebraska.

The essence of the matter seems to be that uniformity of wages, either between States or between the eastern and western sections of the same State, is impossible. The early arrivals in the Oklahoma and southeastern harvests are willing to accept whatever wages they can get during the first two weeks, in the hope of receiving higher wages when the harvest is in full swing in Kansas. Natural market conditions tend to raise the wages when Kansas and parts of Oklahoma are needing men at the same time. The contraction of the demand for labor as the Kansas harvest tapers off into the Nebraska harvest throws men out of employment, producing a fall in wages as the men compete for work there. North Dakota naturally endeavors to adhere to the lower rates, but is forced toward the Kansas price as its harvest nears its height. Neither interstate nor intrastate uniformity of wages seems feasible at present.

EFFECT OF EMPLOYMENT OFFICES UPON WAGES.

Farmers and some county agents on the one hand and the harvest laborers on the other frequently criticize the influence of the Government employment offices upon wages. These farmers and their friends have an idea that the offices raise the wages, while the men think that the offices depress them. While it may be true that an occasional employment official believes that wages are too low and rather encourages the men to "stick out" for a higher rate or considers the rates the men want too high and encourages the farmers in holding them down, the majority of the men in the Federal and State employment offices have tried to maintain an entirely neutral attitude on the question of wages and to act as impartial agents to bring the farmers and the men into contact with one another. A public employment office can follow only one policy successfully, and that is to fill all orders at the "going wage."[6] It can not force wages above that rate or depress them below it without destroying its business.

Wage rates in the harvest field are of two kinds, natural or unstandardized wages and standardized wages. In 1920 an effort was made to fix a standard wage in Kansas, where wages were for the most part unstandardized, to be paid regardless of the size of the labor supply.[7] The State employment offices naturally endeavored to adhere to this wage. If individual farmers refused to pay the rate fixed the office would accept their orders at lower rates, but inform them that it could hardly be expected to get men for them at 60 cents when most of the farmers were paying 70 cents. On the other hand, if a particular farmer placed an order at 80 cents, the office was justified in refusing to advertise the order at that price because if it offered the harvest hands one 80-cent job they would become dissatisfied with 70 cents. To post the 80-cent offer would "spoil the market." The only policy under which the employment offices could operate successfully in Kansas in 1920 was to adhere as closely as possible to the "going rate," 70 cents.

The ease with which the market can be "spoiled" was illustrated at Hays, Kans. A few days before the harvest opened a number of laborers sought employment there at the State rate, 70 cents an hour. After having waited a few days these men were called to the county agent's office in the city hall and an agreement made that they should be placed on farms at 70 cents an hour. Later that day, during the

[6] The expression "going rate" of wages is used here to signify that rate which the majority of farmers are willing to pay and at which labor can be secured for them. If a majority of the farmers offer a wage which the laborers refuse to accept, no "going rate" has been established.

[7] "Kansas Handbook of Harvest Labor," loc. cit.

absence of the county agent, some Russian farmers came to the city hall where most of the harvest hands were congregated, and said, "Boys, we are paying 75 cents an hour. How much do you want?" Seeing a chance to get more than 75 cents some of the laborers demanded 85 or 90 cents an hour, at which price the Russians hired them.[8] When the county agent returned to his office he found that the market had risen to 90 cents an hour, and that the men would not go out for 70 cents. Most of the farmers would not pay more than 70 cents, but there were enough of the Russians paying 90 cents or more an hour to take some of the harvesters and to prevent many of the others from accepting 70 or 80 cents. As a result there were on the streets most of the time about a hundred men, some of whom were honest, clean workers who really did not understand the situation. They listened to the more radical floaters who advised them not to work for less than $1 an hour and made them believe that they would receive that much if they "stuck."

In North Dakota, where no standard rate had been fixed by a State meeting, a group of farmers and a few townspeople at Casselton, Cass County, decided that they would pay 45 cents an hour in the harvest. As no effort was made to fix a standard by agreement in the rest of the State, there was a decided range in the wages offered. Different farmers and different localities were offering 50, 55, 60, and 70 cents an hour at the same time. Under these circumstances, what policy should the employment office at Fargo have followed with respect to harvest wages? Should it have tried to fill orders at all of these rates? At the lowest? At the highest? Could a grocer or a farmer sell the same commodity over the same counter at four different prices at the same time?

Practical experience in scores of cities in the United States, in Canada, and in England has demonstrated that there is only one policy which the employment office can follow in a situation of this kind. It must decide which rate is the actual "going rate" of wages and endeavor to fill as many of the orders as possible at that rate. Ordinarily it can not fill those below the "going rate"; and it can not advertise those above the "going rate" without spoiling the market.

CONCLUSIONS.

The continual fluctuation in harvest labor demand, caused by climate, pests, etc., makes it imperative that additional means be found to facilitate the spread of reliable information concerning harvest conditions among those who constitute the potential supply

[8] The diet in the homes of these Russian farmers differs from that in the homes of most farmers in the Central West. Consequently they have become accustomed to paying higher wages than their American neighbors.

of harvest labor. The daily bulletins issued by the Federal Employment Service during the winter-wheat harvest may be cited as an important step in this direction. Without the further development of such a service, the mobilization of the army of harvest laborers must remain largely a matter of guesswork.

Wildcat advertising by misinformed or unscrupulous persons causes the loss of much time and money, and even produces distress, among transient harvest hands. Newspapers outside of the wheat belt frequently are misled into giving publicity to erroneous statements about the demand for harvest labor.

Most of those who "make the harvest" get no more than a mere subsistence out of the venture. The comparatively small number who save money are those who, through fortunate location or foresight, are able to secure steady work without being forced to make long "jumps."

It seems desirable that a definite standard wage for each State, or perhaps for each distinct region within States, should be established annually.

While it is impossible that State or regional standards should be uniform, such standards should be as nearly uniform as possible under the prevailing conditions.

Employment offices must follow the policy of adhering to the "going wage."

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